IN THE CLAIMS:

Claim 1: A method for the detection of bioactive peptides derived from a precursor protein or protein-containing biological extract, comprising the steps of:

(i) providing a library of peptides derived from said precursor protein or protein-containing biological extract;

(ii) optionally screening said library to confirm that it includes peptides exhibiting one or more biological activities;

(iii) separating said library to provide fractions of the library;

(iv) screening said fractions to identify active fractions which include peptides exhibiting said one or more biological activities;

(v) optionally separating each said active fraction to provide sub-fractions thereof, and screening said sub-fractions to identify active sub-fractions which include peptides exhibiting said one or more biological activities; and

(vi) isolating from said active fractions or active sub-fractions one or more peptides exhibiting said one or more biological activities.

Claim 2: The method according to claim 1, wherein said library of peptides is derived by enzymatic cleavage of the precursor protein or protein-containing biological extract.

Claim 3: The method according to claim 1, wherein said library of peptides is derived by chemical cleavage of the precursor protein or protein-containing biological extract.

Claim 4: The method according to claim 1, wherein said library of peptides is derived by physical digestion of the precursor protein or protein-containing biological extract.

Claim 5: The method according to ~~any one of~~ claim 1, ~~to 4~~ wherein said precursor protein or protein-containing biological extract, or said unfractionated peptide library, is subjected to a

determination of optimal cleavage conditions by monitoring the extent or progress of cleavage or digestion.

Claim 6: The method according to claim 5, wherein said determination comprises mass spectometry analysis.

Claim 7: The method according to claim 6, wherein said determination comprises MALDI-ToF MS analysis.

Claim 8: The method according to ~~any one of~~ claims 6, ~~or 7~~ wherein said determination is automated.

Claim 9: The method according to claim 1, wherein said library of peptides is provided by chemical synthesis.

Claim 10: The method according to ~~any one of~~ claims 1 ~~to 9~~, wherein said peptides comprise at least 2 amino acids.

Claim 11: The method according to claim 9, wherein said peptides comprise at least 5 amino acids.

Claim 12: The method according to ~~any one of~~ claims 1 ~~to 11~~, wherein said peptides are peptide variants.

Claim 13: The method according to ~~any one of~~ claims 1 ~~to 11~~, wherein said peptides are peptide variants.

Claim 14: The method according to ~~any one of~~ claims 1 ~~to 12~~, wherein said peptides comprise peptides whose biological activity is not predictable by amino acid sequence analysis.

Claim 15: The method according to ~~any one of~~ claims 1, ~~to 14~~ wherein said precursor protein is naturally occurring protein.

Claim 16: The method according to ~~any one of~~ claims 1, ~~to 14~~ wherein said precursor protein is a non-naturally occurring protein.

Claim 17: The method according to ~~any one of~~ claims 1, ~~to 14~~ wherein said precursor protein is a recombinant protein.

Claim 18: The method according to ~~any one of~~ claims 1, ~~17~~ wherein said biological activity is agonist activity.

Claim 19: The method according to ~~any one of~~ claims 1, ~~17~~ wherein said biological activity is antagonist activity.

Claim 20: The method according to ~~any one of~~ claims 1, ~~19~~ wherein said biological activity relates to any human condition.

Claim 21: The method according to claim 20, wherein said biological activity relates to conditions selected from the group consisting of arterial and venous thrombosis, inflammation, angiogenesis and cancer.

Claim 22: The method according to ~~any one of the preceding~~ claims 1, wherein said screening of step (ii) and/or step (iv) is carried out using an assay selected from the group consisting of biochemical-based assays and cell-based assays.

Claim 23: The method according to claim 22, wherein said assay is selected from the group consisting of luminescence based assays for platelet activation, laser-based methods for

Prothrombin Time and Activated Partial Thromboplastin Time, luminescence and fluorescence based detection of cell proliferation, cell toxicity and apoptosis and *in vivo* assays.

Claim 24: The method according to claims 22, ~~or 23~~ wherein said assay is high throughput and automated.

Claim 25: The method according to ~~any one of the preceding~~ claims 1, wherein said fractionation of step (iii) and/or step (v) is carried out by a fractionation method selected from the group consisting of chromatography, field flow fractionation and electrophoresis.

Claim 26: The method according to claim 25, wherein said fractionation of step (iii) and/or step (v) is carried out by chromatography.

Claim 27: An isolated peptide exhibiting one or more biological activities, which as been detected by the method according to ~~any one of~~ claims 1~~-26~~.

Claim 28: The method according to claim 1, substantially as hereinbefore described with reference to the examples and/or figures.